**Haozhe (Alex) Zhang**

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**INTERNSHIP EXPERIENCE**

**Schlumberger** May 2022–August 2022

*Software Developer Intern | Schlumberger-Doll Research* Cambridge, MA

* Created a backend management module with **React** to monitor current status of company’s visualization platform.
* Refactored platform’s Logplot with **INT GeoToolkit APIs**, allowing scientists to visualize data in multiple dimensions and empowering them to observe two times more patterns and as many correlations as before.
* Redesigned controller mechanism for 3D renderer written in **Three.js** to provide 3D visualization of geological data, such as electroconductivity, water content, etc. at specific depths, used by Chevron, ExxonMobil, Royal Dutch Shell, and more.

**Meta Force, LLC.** March 2022–May 2022

*Software Developer Intern*Beverly Hills, CA

* Developed company’s official website with animations and responsive design with **React**, **Redux**, **Tailwind**, and **Vite**, increasing website visiting duration by ten times.
* Built and hosted multiple official websites of company’s NFT products on Heroku, leading to a profit of $10 thousand.

**Xiaomi** September 2021–December 2021

*Software Developer Intern & Intern Interviewer | Department of MIUI Experience*Beijing, China

* Developed multiple sections for MIUI 13’s official website (archived at miui13.home.miui.com/tv) with **Next.js** and **Tailwind** and adjusted visual effects to match department’s changing expectations and achieved **3 million DAU**.
* Boosted operations team’s work efficiency by 30% via developing splash screen and product library management modules for Xiaomi Community’s backend with **React** and **Umi.js** to enable automated splash screen and product management displayed to all **5 hundred million Xiaomi users** during Double-Eleven Shopping Festival.
* Carried out APIs for Xiaomi Group’s privacy policy management platform with **Egg.js** and **MySQL**, enabling administrators to access published privacy policies and publish new policies to **8.6 hundred million Xiaomi smartphones**.
* Enriched animation solution pool by analyzing and reproducing animations on Apple MacBook Pro's official website.

**Alibaba** May 2021–August 2021

*Software Developer Intern | Alibaba Cloud Utility Products Business Unit*Hangzhou, Zhejiang, China

* Expanded functionality and improved usability of Alibaba Cloud by implementing new features, varying from constructing the Advanced Features of VPC console to carrying out VSwitch change-of-binding module of VRouter-Table, resulting in an indirect increase in revenue of **$2~5 million**.
* Devised a code generation solution with **React.js** and **Handlebars.js** in order to enhance efficiency and ensure efficient throughput of large frontend development teams with over 5k downloads and increased development efficiency by 20%.

**EDUCATION**

**University of Southern California**, **Master of Science in Computer Science** (GPA 3.8/4.0)January 2022–May 2023

**University of Florida**, **Master of Science in Management** (GPA 3.6/4.0)January 2020–August 2021

**University of Florida**, **Bachelor of Science in Computer Science** (GPA3.7/4.0, Cum Laude) August 2016–December 2020

**TECHNICAL SKILLS**

**Backend**: Java, Spring Boot, Spring Security, Nginx, Tomcat, Kafka, Golang, Hertz, Node, NestJs, Egg.js, Python, Flask

**Frontend/Mobile:** JavaScript, TypeScript, HTML, CSS, Less, Tailwind, React, Next.js, Redux, MobX, RxJS, React Native, Spring MVC, Thymeleaf

**Databases**: MySQL, Firebase, MongoDB, MyBatis, Hibernate, Sequelize, Redis, Gorm

**Other Tech Stacks**: Pandas, Numpy, PyPlot, Seaborn, Sklearn, AWS, GCP

**PROJECTS**

[**TikTok**](https://github.com/BiteDans/tiktok-backend) January 2023–February 2023

Led a team of 8 engineers to rebuild and host a simplified TikTok backend on **GCP** via ByteDance Backend Bootcamp.

* Managed the team by coordinating development progress, making development guidelines and rules, and devising workflows.
* Constructed the scaffold of the project, connected logger, and implemented video and user modules, including friend messaging, video retrieval, file storage, and video publication with **Go**, **Hertz**, **Gorm**, **Amazon AWS S3,** and **ffmpeg**.

**[Nowcoder](https://github.com/rrrrr4788/nowcoder)**  December 2022–January 2023

Engineered and hosted a social media application with **Spring Boot**, **Spring MVC**, **MySQL**, **MyBatis**, **Redis,** and **Kafka**.

* Implemented user login, profile settings, direct message, post, comment, like, and follow modules via **Spring MVC, Spring Boot**, **Spring Security**, **Thymeleaf,** **MyBatis**, and **Redis** including email activation, **Kaptcha** generation, etc.
* Devised system notifications for user like, follow, and comment events by utilizing **Kafka** to achieve a fast response.
* Deployed the project on a **Google Cloud** **Platform** instance hosted at <http://35.184.221.134/> with **Nginx** and **Tomcat**.
* Utilized **Quartz** to recurrently calculate post rankings every 5 min and **Caffeine** to enhance program efficiency via caching.
* Integrated **Spring Boot Actuator** and **Spring Security** to expose project endpoints and calculate UV and DAU of the site.

[**Humming**](https://github.com/Gnoseil/Humming)April 2020–September 2020

Programmed a mobile application simulating delivery service via drones and robots within San Francisco in the Agile fashion.

* Engineered all 7 screens to provide functionalities of user authentication, solution planning, order creation, status tracking, profile information modification, etc., with **React Native** and **Firebase**.
* Enhanced user experience by integrating polyline drawing, route computation, coordinate translation, and payment services.
* Devised APIs for order creation and management, payment information generation and validation, and address management.